BIOMASS HEATING PLANT FOR HEAT SUPPLY



Automotive industry & Cities, municipalities, local authorities: Goodyear & Stadtwerke Hanau (Germany, Hesse)

Supported by:

Federal Ministry
for Economic Affairs
and Climate Action

on the basis of a decision
by the German Bundestag

ENERGY FOR MORE.





Exemplary fuel storage with regional biomass.



Goodyear Germany GmbH is the German subsidiary of the US-based Goodyear Tire & Rubber Company, one of the world's largest tire companies. The Hanau site not only produces tires for the replacement business, but also for original equipment. Many models of well-known premium car brands roll off the production line with Goodyear tires from Hanau as standard. The site also produces motorsport tires that are used in various racing series.

Stadtwerke Hanau is the local energy service provider for the city of Hanau. In its home market, the company is the leading supplier of electricity, natural gas, heat and drinking water.

THE CHALLENGE

Sustainability, energy efficiency and the responsible use of raw materials play an important role for Goodyear and Stadtwerke Hanau. The aim was to develop a highly efficient steam supply that meets the requirements for a sustainable energy supply at the Hanau site and at the same time contributes to the success of the energy transition.

THE SOLUTION

In an exemplary cooperation between the energy service provider GETEC, the tire manufacturer Goodyear and Stadtwerke Hanau, the partners examined numerous alternatives open to all technologies and decided on the most economical and best solution for a sustainable heat supply.

In future, the new biomass heating plant will cover up to 95% of the heat required for production at the Hanau site. The customer's existing energy center will provide redundancy and peak coverage. In addition, around 15 % of the heat from renewable fuels, approximately 15,000 MWh, will be supplied to Stadtwerke Hanau to supply the city with heat.



Exemplary boiler house of a biomass heating plant.

The plant has an output of 16 $\rm MW_{th}$ and delivers up to 24 tons of process steam per hour. By switching from gas to biomass, the tire manufacturer's carbon dioxide emissions at the Hanau site will be reduced by up to 95%. The project is being supported with funding from the Federal Ministry for Economic Affairs and Climate Protection.

SCOPE OF SUPPLY AND SERVICES

- · Project Development
- · Permitting
- · Engineering and plant installation
- · Financing
- · Supply of steam
- · Repair, maintenance, inspection
- · Fuel purchasing
- · Energy and material flow management

PLANT DATA

Supply with: Saturated steam

Energy source: woody biomass: forest

waste wood, industrial waste wood (waste wood AI and AII), landscape conservation

material

Components: Fuel storage

Fuel feeding and conveying

Steam boiler Water treatment

Buildings, outdoor facilities

and auxiliary units

Installed Capacity: 16 MW, (Biomass)

Parameter: Saturated steam: ca. 224°C

Steam pressure: max. 24 barg